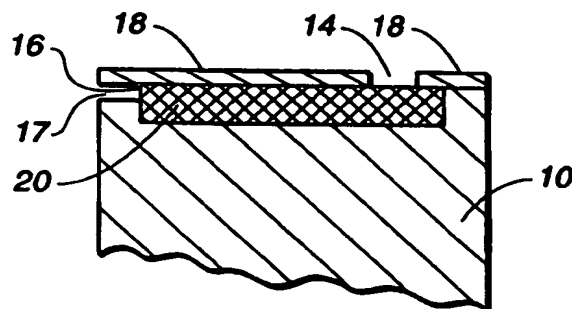




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/US97/14939 (22) International Filing Date: 25 August 1997 (25.08.97) (30) Priority Data: 08/704,804 26 August 1996 (26.08.96) US (71) Applicant: BIOSITE DIAGNOSTICS INCORPORATED [US/US]; Suite D, 11030 Roselle Street, San Diego, CA 92121 (US). (72) Inventors: BUECHLER, Kenneth, Francis; 12523 Manifesto Place, San Diego, CA 92130 (US). BATT, Richard, Roger; 1646 Davis Street #18, San Jose, CA 95126 (US). (74) Agents: LITHGOW, Timothy, J. et al.; Lyon & Lyon LLP, Suite 4700, 633 West Fifth Street, Los Angeles, CA 90071-2066 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 16 July 1998 (16.07.98)
(54) Title: DEVICES INCORPORATING FILTERS FOR FILTERING FLUID SAMPLES		
(57) Abstract <p>Devices and use thereof, the device comprising a filter and a means for region specific compression of the filter. Alternatively, the device comprises a filter; a region containing the filter; a fluid access port to the region containing the filter; a fluid egress port from the region containing the filter; and a lateral fluid flow path through the filter connecting the fluid access port to the fluid egress port. Alternatively, a single step assay device whereby fluid movement through the device occurs substantially solely due to action of capillary force, the device comprising a filter; a region containing the filter; a fluid access port to the region containing the filter; a means for retarding movement of particles through a peripheral filter surface; a fluid egress port from the region containing the filter; a lateral fluid flow path through the filter connecting the fluid access port to the fluid egress port, whereby sample fluid substantially devoid of particulate matter is released from the filter through the egress port; and, an exit region fluidly connected to the egress port. Use of the device optionally comprises means for producing an assay result in an exit region of the device.</p>		



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INTERNATIONAL SEARCH REPORT

Intern. Appl. No.

PCT/US 97/14939

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 B01L3/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 B01L G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 147 609 A (GRENNER GERD) 15 September 1992 see column 6, line 3 - column 7, line 46; figure 4 ---	1-3,5,6
X	US 5 081 017 A (LONGORIA CLAUDE C) 14 January 1992 see column 4, line 41-63; figures 2,3 ---	1-3,5
X	GB 2 284 479 A (BRITISH TECH GROUP) 7 June 1995 see page 15, line 9 - page 16, line 23; figure 7 ---	1,5
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	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

8 May 1998

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 97/14939

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 202 268 A (KUHN RAYMOND E ET AL) 13 April 1993 see column 4, line 31-46 see column 5, line 45 - column 6, line 15 ---	1,5
A	US 5 135 719 A (HILLMAN ROBERT S ET AL) 4 August 1992 cited in the application see column 5, line 15-30 see column 6, line 48-62 see column 7, line 9-38 see column 8, line 37-48 see figure 1 ---	1,7,21, 35
X	US 3 620 677 A (MORISON AYERS) 16 November 1971 see column 1, line 1-12 see column 1, line 27-35 see column 1, line 54-59 see column 2, line 20-21 see column 2, line 63-71 see column 3, line 25-29; figure 5 see column 5, line 42-56 see column 6, line 24-50 see column 7, line 67 - column 8, line 7 see column 8, line 73 - column 9, line 20 see figures 13,14 see column 9, line 65-75; figure 18 -----	1-3,7,8, 10-15, 21,22, 24-27, 30,31, 35,39, 44,45

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 97/ 14939

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. CLAIMS : 1-6
2. CLAIMS : 7-47

FOR FURTHER INFORMATION PLEASE SEE FORM PCT/ISA/206 MAILED 30.12.97

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-6

Filter with region-specific compression

2. Claims: 7-47

Filter with lateral flow path greater than or equal to transverse flow path

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 97/14939

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